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EXAMINER

NOTE, JANIS L

ART UNIT

PAPER NUMBER

1756

13

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,449

Applicant(s)

KONDON et al

Examiner

J DOTE

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 6/2/03
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-7 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-7 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on Jun. 2, 2003, has been entered.

2. The examiner acknowledges the cancellation of claims 8-11, 23, and 24 and the amendment to claim 3 filed in Paper No. 12 on Jun. 2, 2003. Claims 1-7 are pending.

3. The objection to the specification under 35 U.S.C. 132, set forth in the office action mailed Oct. Jan. 30, 2002, Paper No. 7, paragraph 3, has been withdrawn for all the reasons set forth by applicants in the response filed after the final rejection in Paper No. 9 on Apr. 2, 2003, page 2, and their filing of a verified English-language translation of their priority document, Japanese patent application No. 2000-133980, in Paper No. 9 on Apr. 2, 2003. The instant application at page 39, lines 21-23, incorporates by reference said priority document.

The rejections of claims under 35 U.S.C. 103(a) over Japanese Patent 2000-199982 (JP'982) combined with the other cited references, set forth in Paper No. 7, paragraphs 4, 8, 10, and 12, have been withdrawn. Applicants have perfected their claim for the benefit of foreign priority under 35 U.S.C. 119 by filing the verified English-language translation of the priority document, Japanese patent application No. 2000-133980, for the subject matter recited in instant claims 1-7. Therefore, Japanese Patent 2000-199982 (JP'982) is not prior art to those claims.

4. The disclosure is objected to because of the following informalities:

The specification at page 7, lines 26-27, discloses that "Naphthol Carmine F6B and Naphthol Carmine FBB for use in the cyan toners . . . have the following formula . . . " (emphasis added). However, the specification at page 6, lines 12-15, disclosed that the "magenta color toner includes at least one of Naphthol Carmine F6B and a combination of Naphthol Carmine F6B and Naphthol Carmine FBB, as a pigment" (emphasis added).

Appropriate correction is required.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The pigments "Naphthol Carmine F6B" and "Naphthol Carmine FBB" recited in instant claim 1 are defined by the chemical formulas (4) and (5), respectively, at page 8, lines 1-10, of the specification.

7. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,805,969 (Elsermans) combined with US Patent Application Publication 2000/0192580 (Kuramoto'580).

Kuramoto'580, which is the US equivalent of JP'982, is prior art under 35 U.S.C. 102(e).

Elsermans discloses an image forming method that meets the steps recited in instant claim 1, but for the particular color toners. Elsermans' method comprises the steps of: (1) developing electrostatic images on at least three image bearing members with a yellow toner, a magenta toner, and a cyan toner (see Fig. 1, image forming devices **A**, **B**, and **C**, col. 9, lines 44-52); (2) transferring in order the yellow, magenta, and cyan color toner images onto a web of paper to form a full color image (see Fig. 1, web of paper **12**, col. 9, lines 62-66, and col. 11, lines 27-36); and (3) non-contact fixing the full color image on the web of paper with radiant energy (see Figs. 1 and 3, image-fixing station **16**, col. 8, lines 14-40, col. 9, line 67, col. 11, lines 61-67); and (4) modifying the fixed full color image with a

finishing device to achieve a desired gloss (see Fig. 1, finishing station 17, col. 9, line 67, and Fig. 3, finishing rollers 66 and 67, col. 12, lines 1-11). The yellow color toner image is formed directly on the web of paper (i.e., the receiving material), thus satisfying the requirement that "the yellow color toner image has a position closer to the receiving material than any other color toner image" recited in instant claim 1. Elsermans does not limit the type of toner used in its method. Col. 5, lines 59-62.

Kuramoto'580 discloses a set of color toners that meets the limitations recited in instant claims 1-7. The set comprises a yellow toner, a magenta toner, and a cyan toner, wherein each of the toners comprises a binder resin, a pigment, and a zinc salicylic acid complex that meets the limitations recited in instant claims 6 and 7. See yellow toners 1 and 2, magenta toners 1 and 2, and cyan toners 1 and 2 in paragraphs 0083-0096 and 0102-0116. The yellow toner comprises a benzimidazolone pigment. The magenta toner comprises either Naphthol Carmine F6B or a combination of Naphthol Carmine F6B and Naphthol Carmine FBB. The cyan toner comprises β -copper phthalocyanine pigment. Each of the toners has a melt viscosity that meets the viscosity recited in instant claim 3. Each color toner provides a color image having a haze factor as recited in instant claim 2.

The binder resin in the color toners 2 is a polyol. Kuramoto'580 teaches that the polyol is the reaction product of an epoxy resin, a dihydric phenol, and either an adduct of dihydric phenol with an alkylene oxide or a glycidyl ether of an adduct of a dihydric phenol with an alkylene oxide. Paragraphs 0039 and 0040. Said polyol resin meets the polyol resin recited in instant claims 4 and 5. Kuramoto'580 also teaches that the color toners can be combined with a carrier. Paragraph 0074. According to Kuramoto'580, its color toners are capable of producing a multi-color image having a satisfactorily balance in the red and blue fields, and good light resistance. Paragraphs 0008 and 0009.

It would have been obvious for a person having ordinary skill in the art to use Kuramoto'580's set of color toners in Elsermans' image forming method, because that person would have had a reasonable expectation of successfully obtaining an image forming method that is capable of providing full color images on a receiving material with a desired gloss and having the benefits disclosed by Kuramoto'580.

8. Claims 1, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsermans combined with US 6,020,100 (Iwasaki), as evidenced by Chemical Abstracts (CA) Registry

Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289.

Elsermans discloses a full color image forming method as described in paragraph 7 above, which is incorporated herein by reference.

As discussed in paragraph 7, supra, Elsermans does not disclose the particular color toners recited in the instant claims. However, Elsermans does not limit the type of toner used in his method or apparatus. Col. 5, lines 59-62.

Iwasaki discloses a set of color toners comprising a yellow toner, a magenta toner, and a cyan toner. The color toners comprise a binder resin and a zinc salicylic acid compound that meets the metal complex recited in instant claims 6 and 7. See col. 9, lines 30-31, example 1 at cols. 10-11, example 13 at cols. 18-19. The yellow toner comprises Pigment Yellow 180, which is identified in CA Reg. No. 77804-81-0 as a benzimidazolone pigment. The cyan toner comprises Pigment Blue 15:2, which is identified in CA Reg. No. 147-14-8 as β -copper phthalocyanine. The magenta toner comprises Pigment Red 184. Pigment Red 184 is identified as a commercially available Naphthol AS pigment comprising a mixture of compounds having the same chemical formulae disclosed in the instant specification, page 8, as Naphthol Carmine F6B. See Industrial Organic Pigments, Table 18 at page 289. Thus, Pigment Red 184 is

Naphthol Carmine F6B. Iwasaki further teaches that the color toners can be used as a mono-component developer, or in a two-component developer comprising a carrier. Col. 9, lines 56-61. Iwasaki discloses that his color toners are capable of providing full color images with good color reproducibility and transparency. Col. 1, lines 53-57, and for example, Table 1, example 1.

It would have been obvious for a person having ordinary skill in the art to use Iwasaki's color toners in Elsermans' image forming method, because that person would have had a reasonable expectation of successfully obtaining an image forming method that is capable of providing full color images on a receiving material with a desired gloss and good color reproduction and gloss and having the benefits disclosed by Iwasaki.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsermans combined with Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, as applied to claim 1 above, further combined with additional teachings in Iwasaki.

The combined teachings of Elsermans and Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0

and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, render obvious a full color image forming method as described in paragraph 8 above, which is incorporated herein by reference.

As discussed in paragraph 8, supra, Iwasaki discloses color toners that meet the toner compositional limitations recited in instant claim 1. However, Iwasaki does not disclose that the color toners provide a color image having a haze factor as recited in instant claim 2. Nor does Iwasaki disclose that the color toners have a melt viscosity as required in instant claim 3.

The instant specification at page 9, lines 8-16, discloses how to prepare a toner which produces a toner image having a relatively low haze factor. The toner manufacturing method uses a master batch in which a pigment is dispersed in a binder resin in a high content. The specification discloses that the master batch can be prepared preferably by kneading methods in which a pigment is kneaded with a resin using a two-roll or three-roll mill. Iwasaki discloses that his color toners are obtained by using a pigment master batch where the batch is obtained by kneading pigment and binder resin in a weight ratio of 23:54 in a twin-screw kneader. Col. 17, lines 23-43. Iwasaki's method appears to be the same or substantially the same as disclosed in the instant specification. Because Iwasaki's color toners meet the

compositional limitations recited in instant claim 2, and because Iwasaki's color toners appear to be made in the same or substantially the same manner as disclosed in the specification, it is reasonable to presume that Iwasaki's color toners produce color images having the haze factor recited in instant claim 2. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

The instant specification at page 9, lines 17-22, discloses that to obtain color images having good reproducibility, it is important that each of the color toners melts and uniformly mixes with each other when fixed. The specification discloses that it is preferred that the toners have a melt viscosity not greater than 120 mPa·sec at 140°C. Iwasaki discloses that his color toners provide full color images having good color reproducibility. See Table 1, example 1, and Table 3, example 13. Because Iwasaki's color toners meet the compositional limitations recited in instant claim 3, and produce full color images having good color reproducibility, it is reasonable to presume that Iwasaki's color toners have the required melt viscosity recited in instant claim 3. The burden is on applicants to prove otherwise.

It would have been obvious for a person having ordinary skill in the art to use Iwasaki's color toners in Elsermans' image forming method, because that person would have had a

reasonable expectation of successfully obtaining an image forming method that is capable of providing full color images on a receiving material with a desired gloss and having the benefits disclosed by Iwasaki.

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsermans combined with Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, as applied to claim 1 above, further combined with US 5,554,478 (Kuramoto'478).

The combined teachings of Elsermans and Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, render obvious a full color image forming method as described in paragraph 8 above, which is incorporated herein by reference.

Iwasaki does not disclose the use of a polyol resin as the toner binder resin as recited in instant claims 4 and 5. However, Iwasaki does not limit the type of toner binder resin used. Iwasaki discloses that it is desirable that the binder resin have particular melting characteristics so as to enable the toner, as a full color toner, to have good light transmission and good color reproducibility. Col. 9, lines 1-5.

Kuramoto'478 discloses a polyol binder resin synthesized by reacting (1) an epoxy resin, (2) a dihydric phenol, and (3) either an alkylene oxide adduct of a dihydric phenol or a glycidyl ether thereof. See Synthesis Example 1 at col. 8. Said binder resin meets the polyol recited in instant claims 4 and 5. Kuramoto'478 discloses that color toners comprising said binder resin provide full color images with excellent color reproducibility and uniform glossiness. Col. 3, lines 32-35, and col. 19, lines 14-17. Said color toners also can provide sharp full color images without muddiness on a transparent film. Col. 19, lines 27-30. Thus, it appears that Kuramoto'478's polyol resin provides color toners capable of providing full color images having good light transmission and good color reproducibility, which are the properties desired by Iwasaki.

It would have been obvious for a person having ordinary skill in the art to use Kuramoto'478's polyol binder resin as the binder resin in the color toners disclosed by Iwasaki, because that person would have had a reasonable expectation of successfully obtaining a set of color toners that provide full color images with excellent color reproducibility and uniform glossiness. It would have also been obvious to that person to use the set of color toners rendered obvious, over the combined teachings of Iwasaki and Kuramoto'478 in Elsermans' image forming method, because that person would have had a reasonable

expectation of successfully obtaining an image forming method that is capable of providing full color images on a receiving material with a desired gloss and having the benefits disclosed by the combined teachings of Iwasaki and Kuramoto'478.

11. Claims 1, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, combined with US 3,874,892 (McInally) and US 5,521,688 (Moser).

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, combined with McInally and Moser.

Iwasaki discloses color toners, a yellow color toner, a magenta toner, and a cyan toner, that meet the toner compositional limitations recited in instant claims 1, 6, and 7, as described in paragraph 8 above, which is incorporated herein by reference. See examples 1 and 13.

Said color toners also appear to meet the toner properties recited in instant claims 2 and 3, as discussed in paragraph 9 above, which is incorporated herein by reference.

Iwasaki exemplifies forming a full color images with its set of three color toners in examples 1 and 13. See col. 12, lines 21-26, Table 1 at col. 12, example 1, col. 20, lines 6-9, and Table 3 at col. 20, example 13. Iwasaki discloses that a full color printer shown in Fig. 1 and described at cols. 13-14 was used to form the full color images using the three color toners. See col. 12, lines 21-26. The image forming method using the full color printer shown in Fig. 1 comprises the steps of: (1) developing an electrostatic image on an image bearing member 10 with a cyan toner; (2) transferring the cyan toner image onto an intermediate transfer belt 40; (3) repeating steps (1) and (2) using in order the magenta and yellow toners to form a full color toner image on the intermediate transfer belt; (4) transferring the full color image on the intermediate transfer belt 40 to a recording sheet S; and (5) fixing the full color toner image on the recording sheet S with a "belt-type" heat fixing device 70. Fig. 1, col. 14, line col. 14, lines 14-38.

Because the yellow color toner image is the last image formed on the intermediate transfer belt, it forms the image closest to the receiving material. Thus, the method of forming a full color image meets the requirement recited in instant claim 1 that "the yellow color toner image has a position closer to the

receiving material than any other color toner image" recited in instant claim 1.

Iwasaki does not disclose the use of "non-contact" fixing as recited in instant claim 1. As discussed, previously, Iwasaki's method utilizes a "belt-type" heat fixing device 70. The "belt-type" heat fixing device 70 comprises a nip formed between belt member wrapped around a roller and a roller. See Fig. 1. The fixing device 70 uses heat and pressure to fix a toner image to a recording material.

McInally discloses that hot or cold pressure fixing methods have been known to create problems of image offsetting, resolution degradation, and generally have failed to produce consistently acceptable fixed images. Col. 1, lines 34-38.

Moser discloses a fixing method for fixing toner images on a receiving material that does not involve hot pressure fixing. Moser's method comprises the steps of non-contact fixing the color images on a receiving material by heating the member in an oven 76, and passing the fixed color images through a nip 90 formed by a pair of glossing rolls 78 and 80 to produce a desired uniform gloss in the color images. Col. 5, lines 27-61, and Fig. 1. Moser discloses that its method provides fixed color images that exhibit uniform gloss and satisfactory color saturation properties. Col. 1, lines 5-9. Moser discloses that

his method can be used in a wide variety of printing methods and machines. Col. 4, lines 1-5. According to Moser, the glossing rollers are operated at substantially lower temperatures than conventional fusing rollers, which results in longer life and reliability compared to conventional fusing rollers. Col. 1, lines 57-61, and col. 3, lines 32-35. Moser also discloses that the glossing rollers are significantly smaller in diameter than conventional heated fusing rollers, resulting in cost savings. Col. 3, lines 36-40.

It would have been obvious for a person having ordinary skill in the art to use Moser's method of fixing color images to the recording sheet in the image forming method disclosed by Iwasaki with Iwasaki's color toners in examples 1 or 13, because that person would have had a reasonable expectation of successfully obtaining a cost-effective and reliable image forming method that could be used repeatedly for a long time and that would be capable of providing full color images having satisfactory color saturation properties and a desired uniform gloss.

12. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, and Industrial Organic Pigments, Table 18 at page 289, combined with McInally

and Moser, as applied to claim 1 above, further combined with Kuramoto'478.

The combined teachings of Iwasaki, McInally, and Moser render obvious a full color image forming process as described in paragraph 11 above, which is incorporated herein by reference.

Iwasaki does not disclose the use of a polyol resin as the toner binder resin as recited in instant claims 4 and 5. Kuramoto'478 discloses a polyol toner binder resin that is within the compositional limitations recited in instant claims 6 and 7, and the benefits of using its binder resin in color toners. The discussions of Iwasaki and Kuramoto'478 in paragraph 10 are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art to use Kuramoto'478's polyol binder resin as the binder resin in the color toners disclosed by Iwasaki, because that person would have had a reasonable expectation of successfully obtaining a set of color toners that provide full color images with excellent color reproducibility and uniform glossiness. It would have also been obvious to that person to use the set of color toners rendered obvious over the combined teachings of Iwasaki and Kuramoto'478 in the image forming method rendered obvious over the teachings of Iwasaki, McInally, and Moser, because that person would have had a reasonable expectation of successfully obtaining a cost effective and

reliable image forming method that is capable of providing full color images having the benefits disclosed by the combined teachings of Iwasaki and Kuramoto'478.

13. Because of applicants' cancellation of claims 8, 9, 23, and 24 in Paper No. 12, the rejections set forth in the final rejection in Paper No. 7, paragraphs 9, 11, and 13, are now considered to be cumulative with the rejections over Elsermans combined with Iwasaki, alone or combined with Kuramoto'478, set forth in paragraphs 8-10 above. For the reasons discussed in the final rejection, these rejections would apply equally to the subject matter recited in claims 1-7, but are not set out.

In addition, rejections under 35 U.S.C. 103(a) of claims 1-7 over US 4,593,991 (Aoki) combined with Moser and Kuramoto'580 and of claims 1-7 over US 5,442,428 (Takahashi) combined with Moser and Kuramoto'580 would also be considered cumulative with the rejection over Elsermans combined with Kuramoto'580, set forth in paragraph 7 above, and would apply equally to the subject matter recited in instant claims 1-7, but are not set out.

14. Applicants' arguments filed in Paper Nos. 9 and 12 with respect to the rejections set forth in paragraphs 7-12 above have been fully considered but they are not persuasive.

Applicants argue that there is nothing in the cited combinations of references to suggest the beneficial result sought by applicants by using the toner pigment combination with the processing features recited in instant claim 1. Applicants assert that said result is unobvious and unexpected over the prior art of record.

The reasons for combining the references do not have to be those of applicants. In each of the rejections set forth in paragraphs 7-10 above, the combined teachings of the cited prior provide ample teaching, suggestion, or motivation to a person having ordinary skill in the art to use the color toners disclosed by either Kuramoto'580 or Iwasaki, or rendered obvious over the combined teachings of Iwasaki and Kuramoto'478 in the method for forming a full color image disclosed by Elsermans. In the rejections set forth in paragraphs 11 and 12, the teachings of McInally and Moser provide ample teaching, suggestion, or motivation to use Moser's non-contacting fixing method in the method disclosed by Iwasaki or rendered obvious over the combined teachings of Iwasaki and Kuramoto'478. Accordingly, the combination of the references cited in paragraphs 7-12 above renders prima facie obvious the instantly claimed method.

Furthermore, the showing in the instant specification is insufficient to show that the instantly claimed invention yields

unexpected results over the prior art for at least the following three reasons:

(1) As previously discussed in Paper No. 7, paragraph 14, the showing is not commensurate in scope with the instant claims. Instant examples 1-4 comprise combinations of preferred embodiments that are recited individually in claims 2-7, which depend from independent claim 1. No claim is limited to the combination of preferred embodiments shown in the examples. The color toners in example 1 comprise a preferred charge controlling agent (see instant claim 7), and have a preferred haze factor and melt viscosity (see instant claims 2 and 3, respectively). The color toners in example 2 comprise a preferred toner binder resin (see instant claims 4 and 5), a preferred charge controlling agent (see instant claim 6), and have a preferred haze factor and melt viscosity (see instant claims 2 and 3, respectively). The color toners in example 3 comprise a preferred toner binder resin (see instant claims 4 and 5), a preferred charge controlling agent (see instant claim 6), and have a preferred haze factor (see instant claim 2). The color toners in example 4 comprise a preferred toner binder resin (see instant claims 4 and 5), a preferred charge controlling agent (see instant claim 6), and have a preferred melt viscosity (see instant claim 3).

Given the welter of unconstrained variables it is not clear whether the results shown in the instant specification are

obtained from the color toners comprising the particular yellow and magenta pigments recited in instant claim 1 (as argued by applicants), or due to some combination of the preferred embodiments. Each of the examples is narrower in scope than any dependent claim.

Applicants, in the response filed after the final rejection in Paper No. 9, state that the specification does not disclose examples 1-4 as preferred. This argument is contradicted by applicants' own specification. The instant specification discloses that the limitations recited in instant claims 2-7 are preferred because the color toners comprising said respective embodiments have good or improved color reproducibility. Specification, page 8, line 23, to page 9, line 2; page 9, lines 17-23; page 10, line 25, to page 11, line 4; page 12, lines 19-21; and page 39, lines 5-19. See the advisory action mailed on Apr. 16, 2003, Paper No. 10, paragraph 2,

Applicants, in Paper No. 12, further assert that the showing in the instant specification is properly commensurate in scope with claim 1. Applicants argue that comparative example 1 differs from example 1 only with respect to the order of the toner layers, and comparative examples 2 and 3 differ from examples 1 and 2, respectively, with respect to the yellow or magenta pigments used. Applicants conclude that "[s]ince all factors other than features of claim 1 were thus effectively

unchanged as between the Examples and Comparative Examples, it is submitted that the data in the specification fairly establish that the improved results are obtained from the combination of pigments and layer order recited in claim 1."

However, comparative example 1 is not a probative comparison to the prior art of Elsermans and Iwasaki. Both Elsermans and Iwasaki teach the order of the toner layers as recited in instant claim 1. Comparative examples 2 and 3 are not probative comparisons to Iwasaki because Iwasaki teaches the use of the particular yellow and magenta pigments recited in instant claim 1. Thus, only comparative examples 2 and 3 are probative comparisons to Elsermans.

Moreover, as discussed, supra, examples 1-4 are not commensurate in scope with the instant claims. They do not represent the full scope of the invention recited in claim 1, or any of the dependent claims. There is no evidence on the present record showing that the improved results in color reproducibility are obtained from the color toners comprising only the particular yellow and magenta pigment recited in instant claim 1.

Applicants have not shown that the full scope of instant claim 1 provides unexpectedly superior results over the prior art of Elsermans. "It is well settled 'that objective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support.' In re Tiffin, 448 F.2d

791,171 USPQ 294 (CCPA 1971)." In re Grasselli, 218 USPQ 769, 778 (Fed. Cir. 1983). The burden is on applicants, who are asserting unexpected results, to come forward with showings that the evidence on which they rely extend over the entire scope of the claimed subject matter.

(2) Furthermore, the results in the specification do not appear to be unexpected. Kuramoto'580 shows that its color toners, when used in a method or apparatus for forming a full color image, provide the same or nearly the same results shown in the instant specification. Compare for example, Kuramoto'580's examples 1 and 2 in Tables 10 and 11 with examples 1 and 2 in Table 1 of the instant specification. Kuramoto'580's toners in examples 1 and 2 appear to be identical to the toners in examples 1 and 2 of the instant specification. Kuramoto'580 does not specify that the method comprise the toner layer ordering and the non-contact fixing steps recited in instant claim 1. Kuramoto'580 does not limit the type of fixing used. As discussed in the rejection in paragraph 7, supra, Kuramoto'580 discloses that its color toners are capable of producing a multi-color image having a satisfactorily balance in the red and blue fields, as well as good light resistance. These are the same objectives sought by applicants. Accordingly, in view of the teachings of Kuramoto'580, the results shown in the instant

specification would have been expected by a person having ordinary skill in the art.

(3) Finally, the showing in the instant specification does not compare to the reference Iwasaki. For the reasons as discussed in item (1) supra, comparative examples 1-3 are not probative comparisons to Iwasaki. Applicants have not shown that the non-contacting fixing step recited in instant claim 1 provides unexpectedly superior results in color reproducibility over Iwasaki.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Palestine Jenkins, whose telephone number is (703) 308-3521.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JLD
June 24, 2003

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP ~~1500~~
1700